

## ABSTRACT

A thermoelectric conversion apparatus having a high thermoelectric conversion efficiency comprises: a dehydrogenation reactor for generating hydrogen and acetone by an endothermic dehydrogenation reaction of isopropyl alcohol in the presence of a dehydrogenation catalyst and heat from a heat source, and a fuel cell which generates electricity by an electrochemical reaction of the hydrogen and the acetone produced by the dehydrogenation reactor. A module is constructed by integrating the dehydrogenation reactor and an electricity generating layer constituting the fuel cell into a stack.